

MAC-10102/29
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SUB
A1

1. An improved piezoelectric (PZT) force motor, comprising:
2 a housing having opposing ends;
a PZT element supported relative the housing operative to expand and contract the
4 ends of the housing through the application of an electrical signal; and
a plurality of components exhibiting both positive and negative coefficients of
6 thermal expansion which cooperate to cancel one another so as to reduce the overall
temperature expansion coefficient of the motor.

2. The improved piezoelectric force motor of claim 1, wherein the PZT
2 element is a stacked structure.

3. The improved piezoelectric force motor of claim 1, wherein the
2 components include:
a first member which expands in one direction; and
4 a second member which expands in the opposite direction.

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A2

4. The improved piezoelectric force motor of claim 1, wherein the second
2 member is a cup.